

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OKLAHOMA

STATE OF OKLAHOMA, et. al.

v.

TYSON FOODS, INC., et. al.

Case No. 05-CV-0329 GKF-SAJ

AFFIDAVIT OF WILLIAM BANNER, M.D., Ph.D

1. I hold a B.S. in Physical Science from Memphis State University, an M.D. from the University of Tennessee College of Medicine, and a Ph.D. in Pharmacology from the University of Arizona College of Medicine.

2. I am a Fellow of the American Academy of Pediatrics, the Society of Critical Care Medicine, the American College of Medical Toxicology (Chairman 1992-1994), and the American Academy of Clinical Toxicology (President 1994-1996).

I served on the Editorial Board for *Clinical Toxicology* from 1988-1998, and I was Associate Editor for this publication from 1990-1996. I am also on the Editorial Board for *Medical Toxicology*. I have authored multiple articles in the field of toxicology. In 2002, I was appointed by President Bush to the Advisory Committee on Childhood Lead Poisoning Prevention. A complete copy of my curriculum vitae is attached.

3. I am currently Medical Director of the Children's Hospital at Saint Francis and

Co-Director of the Pediatric Intensive Care Unit, Saint Francis Hospital. As a board certified toxicologist and Co-Director of the region's preeminent critical care facility for pediatric intensive care, I consider myself an expert in the fields of toxicology and critical care medicine.

4. I have been retained by the Defendants in connection with an action brought by the Attorney General of the State of Oklahoma claiming poultry litter poses a risk of imminent harm to human health in the Illinois River Watershed. I have been asked to offer a clinical opinion as to risk of harm espoused by the State's experts. In preparing to render my opinions in this matter, I have reviewed the State's Motion for Preliminary Injunction, as well as the supporting affidavits from the State's experts. I have also reviewed statistical data regarding Reportable Disease published annually by the Oklahoma State Department of Health. This includes reportable disease associated with exposure to bacteria such as Campylobacteriosis, Salmonellosis, Cryptosporidiosis, and Giardia.

5. The statistical data of Reportable Diseases published by the Oklahoma State Department of Health is meaningless in rendering an opinion as to the cause of an imminent risk to human health. The underlying cause of the enteric disease is not reported in the data. Typically, these infectious diseases are due to foodborne pathogens or direct contact with an animal, and they are not waterborne illnesses. There is no geographic clustering of these reportable diseases within the counties

in the Illinois River Watershed or surrounding counties. It is unreasonable to state there is an imminent risk of human harm from poultry litter in the Illinois River Watershed based upon the Oklahoma State Department of Health's statistical data.

6. The presence of indicator organisms does not mean that bacteria harmful to human health is present. Indicator organisms, as their name implies, are used to "indicate" the presence of conditions which have a potential to cause illness. An important thing to remember regarding indicator organisms is that, of themselves, they are not harmful. Rather, since these organisms are found in the intestine of many warm-blooded animals, their presence simply suggests that potentially harmful organisms also found in the intestine of warm-blooded animals (including humans) may or may not be present. Indicator organisms can come from any number of sources.

7. A basic tenet of the field of toxicology is the dose-response relationship. There is an expected response associated with a given level of every toxin. In other words, a certain dosage of a toxin (e.g., a pathogenic bacteria) produces a certain response. Without knowing the dosage a person is potentially exposed to of a toxin, any opinion as to the predicted medical cause of a response presented is uncertain and unreliable. In this case, the State is attempting to predict imminent harm from enteric disease (i.e., a response) without the requisite information as to dose. This approach is invalid.

8. Children under the age of ten years are more susceptible to the adverse effects of enteric disease than are adults. As the preeminent pediatric facility in this region of the country, we routinely receive transfers of cases of children suffering harmful effects from pathogenic bacteria, protozoa, amoebas and other causative agents. Saint Francis Hospital would be the facility of choice to transfer a patient from the counties in and surrounding the Illinois River Watershed who were suffering the adverse effects of enteric disease.

9. Given the number of people annually (averaged at 117,685 by Lowell Caneday, Ph.D) who float the Illinois River, and the additional number who may wade or swim in the river, if there were harmful levels of enteric pathogens in the Illinois River, I would know about it due to the clinical correlation of patients who would be suffering adverse effects and the presentation of those patients at Saint Francis Hospital. Based on the number of people visiting the Illinois River each year, you would expect such a causal connection of enteric disease to have been established if one existed. Identification of the causative agent would have already occurred due to multiple patients relating the same history of contact with the Illinois River. No such identification of any medical cause of injury has occurred with regards to the Illinois River Watershed.

10. I have never seen, consulted on, or even heard of a single clinical case of enteric disease resulting from contact with the Illinois River Watershed. None of

the experts offered by the State reference a single clinical case of illness resulting from contact with the Illinois River Watershed. Evidence to predict a medical risk of imminent harm is simply not present in this case.

11. To a reasonable degree of medical certainty, there is no risk of imminent harm to human health resulting from poultry litter in the Illinois River Watershed, or for that matter, from contact with the waters in the Illinois River Watershed generally.

FURTHER AFFIANT SAYETH NOT.

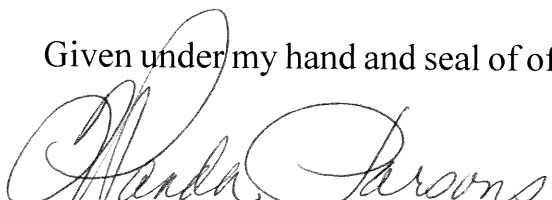

WILLIAM BANNER, M.D., Ph.D

County of Tulsa)

State of Oklahoma)

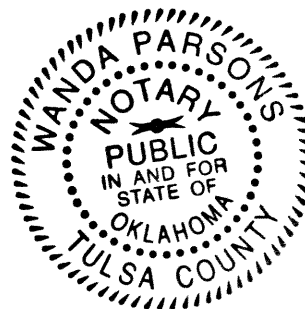
Before me, the undersigned, a Notary Public, in and for said County and State, on this 8th day of February 2008, personally appeared William Banner, M.D., Ph.D, to me known to be the identical person who executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal of office the date and year last above written.


Notary Public

My commission expires:

12/07/08



My Commission Expires 12-07-08
My Commission No. 04011001

May 2007

CURRICULUM VITAE

Personal Data

Name: William Banner, Jr., M.D., Ph.D.

Date of Birth: May 29, 1952

Place of Birth: Detroit, Michigan, U.S.A.

Home Address: 4822 E 112th St
Tulsa, OK 74137
(918) 298-9446

Office Address: Saint Francis Hospital
6161 So Yale
Tulsa, OK 74136
(918) 494-5491

Current Position

Medical Director, The Children's Hospital at Saint Francis
Co-Director, Pediatric Intensive Care Unit
Medical Director, The Oklahoma Poison Control Center

Education

01/1979 - 06/1981	Fellow, Clinical Pharmacology, Department of Internal Medicine, and Pediatrics, Arizona Health Sciences Center, University of Arizona, Tucson, Arizona
01/1977 - 12/1978	Residency (Straight Pediatrics), LeBonheur Children's Hospital, University of Tennessee, Memphis, Tennessee
06/1979 - 08/1982	Ph.D., Department of Pharmacology, College of Medicine, University of Arizona, Dissertation Title: "Changes in Vascular Alpha-Adrenergic Receptor Mechanisms During Maturation" Director: Sue Piper Duckles, Ph.D.
01/1974 - 12/1976	M.D., University of Tennessee College of Medicine, Memphis, Tennessee
1971 - 1973	B.S., Physical Science (cum laude), Memphis State University
1970 - 1971	Georgia Institute of Technology, Atlanta, Georgia

Medical Licensures and Professional Certification

1990-1997 1997-2004 2005-2011	Diplomate - Pediatric Critical Care Medicine
1984	Diplomate - American Board of Pediatrics
1981	Diplomate - American Board of Medical Toxicology

2003	Advanced Hazardous Life Support Instructor
1994	Oklahoma - 19204
1987	Utah - 8579-1001-4 (inactive)
1979	Arizona – 11132 (inactive)
1976	Tennessee – 10328 (inactive)

Faculty Appointments

07/2006 to present	Adjunct Clinical Associate Professor of Pediatrics, Oklahoma State University-College of Osteopathic Medicine
07/1999 - present	Clinical Professor of Pediatrics, Oklahoma University College of Medicine-Tulsa
01/2000 - present	Clinical Professor of Pharmacy, Oklahoma University College of Pharmacy-Tulsa
08/1995 - 1999	Clinical Associate Professor of Pediatrics, Oklahoma University College of Medicine-Tulsa
01/1991 - 1994	Adjunct Associate Professor of Pharmacology and Toxicology University of Utah Medical Center, Salt Lake City, Utah
06/1987 - 1994	Associate Professor of Pediatrics, Division of Critical Care University of Utah Medical Center, Salt Lake City, Utah
08/1982 - 04/1987	Assistant Professor, Department of Pediatrics, College of Medicine, University of Arizona
08/1982 - 04/1987	Assistant Professor, Department of Pharmacology, College of Medicine, University of Arizona
06/1983 - 04/1987	Adjunct Assistant Professor, Department of Pharmacy Practice, College of Pharmacy, University of Arizona, Tucson, Arizona
04/1979 - 08/1982	Lecturer, Department of Pediatrics, Arizona Health Sciences Center, University of Arizona, Tucson, Arizona

Scholastic Honors and Awards

Fellow - American Academy of Pediatrics, 1984

Fellow - American Academy of Clinical Toxicology, 1987

Fellow - American College of Critical Care Medicine, 1992

Fellow - American College of Medical Toxicology

Professional Activities

Advisory Committee on Childhood Lead Poisoning Prevention - Centers for Disease Control

Member - 9/30/02-05/31/05

American Academy of Clinical Toxicology

Past-President 1996-1998

President 1994-1996

President-Elect 1992-1994

Board of Trustees 1986-1991

Committee on Publications 1988 (Chairman 1989)

Finance Committee 1987

Membership Committee 1986

American Board (College) of Medical Toxicology

Past Chair 1994-1996

Chairman 1992-1994

Vice Chairman 1990-1992

Secretary/Treasurer 1988-1990

Board of Directors/Examiners 1984-1988

American Academy of Pediatrics

Committee on Drugs 1989-1993

World Health Organization

Joint IPCS/CEC Working Group on the Evaluation of Chelating Agents in Poisoning - Munster, Germany, May 29-31, 1989.

National Institute of Neurologic Diseases and Stroke

Member Ad Hoc Study Section - July 1990

Society of Critical Care Medicine

Tulsa County Medical Society

Oklahoma Medical Association

Editorial Experience

Clinical Toxicology - Editorial Board - 1988-1998; Associate Editor 1990-1996

Medical Toxicology - Drug Safety - Editorial Board

Research Awards

Principal Investigator

Age-Related Changes of Vascular Receptor Mechanisms

American Heart Association Arizona Affiliate

1982 \$11,853

1983 \$15,000

Age-Related Changes in Calcium Channel Receptor Binding

Biomedical Research Support Grant

1983 \$ 6,000

Development of Computer Assisted Graphics on the

DEC System 20

Biomedical Research Support Grant

1983 \$ 6,595

Evaluation of Esmolol in Poisoned Patients American Critical Care	1983	\$15,000
Use of N-acetylcysteine in Metal Intoxication Mead Johnson, Inc.	1984	\$ 3,000
Effects of Chronic Theophylline on Vascular Receptor Mechanisms American Heart Association, Arizona Affiliate	1984	\$16,000
Dopamine and Dobutamine Kinetics in Pediatric Patients National Heart, Lung and Blood Institute	1985	\$68,300
Effect of Albuterol on Pulmonary Function in Mechanically Ventilated Neonates Glaxo, Inc.	1988	\$39,002
Pharmacokinetic and Hemodynamic Interactions of Combinations of Catecholamines in the Dog American Heart Association - Utah Affiliate	1989	\$10,494
Atomic Absorption Spectrophotometry - University of Utah Equipment Grant	1989	\$25,920
Protein Binding and Catecholamine Kinetics in Pediatric Patients	1990	\$25,850
American Heart Association Grant-in-Aid	1991	\$26,510
	1992	\$27,170
Ketorolac Kinetics and Dynamics in Pediatric Patients Fidelity Foundation Martha E Edgar Spencer Ed. Fund Ben B and Iris M Margolis Fdn	1993	\$15,128
The Impact of Oral DMSA on Ongoing Exposure to Lead McNeil Consumer Products Company	1992	\$15,466
Pediatric Endoscopy Grant Kiwanis Club of Olympus	1992	\$ 1,500
A Study of Lead Poisoning in Utah Children Ben B and Iris M Margolis Foundation	19983	\$10,000

Co-Investigator

Pharmacokinetics of Tobramycin in Cystic Fibrosis Patients Eli Lilly & Company (K. McCoy: Principal Investigator)	1983	\$12,000
Safety and Efficacy of High Dose Tobramycin Therapy Eli Lilly & Company (ME Lund: Principal Investigator)	1983	\$ 3,000
Metoclopramide in Acetaminophen Intoxication McNeil Pharmaceutical (T Tong: Principal Investigator)	1983	\$10,000
Evaluation of the Cerebrospinal Fluid Penetration of Cefixime in the Presence of Inflamed and Non-Inflamed Meninges Lederle Laboratories (WM Gooch: Principal Investigator)	1988	\$25,000
Single-Dose Pharmacokinetics, Safety & Tolerance of		

SCH 39720 In Pediatric Patients

Schering Plough, Inc. (WM Gooch: Principal Investigator)

1988 \$24,000

Original, Peer-Reviewed Publications

1. Gooch WM 3d. Kennedy J. Banner W Jr. McGuire HJ. Generalized arterial and venous thrombosis following intra-arterial paraldehyde. *Clin Toxicol* 15(1). 39-44. (Yr?)
2. Banner W Jr. Czajka PA. Acute caffeine overdose in the neonate. *Am J Dis Child* 1980; 134(5): 49-58.
3. Czajka PA. Anderson WH. Christoph RA. Banner W Jr. A pharmacokinetic evaluation of peritoneal dialysis for phenytoin intoxication. *J Clin Pharmacol* 1980; 20(10):565-69.
4. Banner W Jr. Gooch WM 3d. Burckart G. Korones SB. Pharmacokinetics of nafcillin in infants with low birth weights. *Antimicrob Agents Chemother* 1980; 17(4): 691-4.
5. Banner W Jr. Johnson DG. Walson PD. Jung D. Effects of single large doses of phenytoin on glucose homeostasis preliminary report. *J Clin Pharmacol.* 1982;22(23):79-81.
6. Banner W Jr. Clawson L. Failure of naran to reverse clonidine toxicity. *Vet Hum Toxicol* 1981; 23(Suppl 1): 356.
7. Iserson KV. Banner W. Froede RC. Derrick MR. Failure of dialysis therapy in potassium dichromate poisoning. *J Emerg Med* 1983; 1(2):143-9.
8. Banner W Jr. Lund ME. Clawson L. Failure of naloxone to reverse clonidine toxic effect. *Am J Dis Child* 1983; 137: 1170-71.
9. Banner W Jr. Walson PD. Systemic toxicity following gasoline aspiration. *Am J Emerg Med* 1983; 1(3): 292-4.
10. *Lund ME. Banner W Jr. Finley PR. Burnham L. Dye JA. Effect of alcohols and selected solvents on serum osmolality measurements. *J Toxicol Clin Toxicol* 1983; 20(2): 115-32.
11. Duncan B. Banner W. Ruggill J. Emergency drills in a pediatric residency training program. *Ann Emerg Med.* 1983; 12(3): 164-6.
12. Likes K. Banner W Jr. Chavez M. Centruroides exilicauda in Arizona. *West J Med* 1984; 141(5): 634-7.
13. *Rachesky IJ. Banner W Jr. Dansky J. Tong T. Treatments for Centruroides exilicauda envenomation. *Am J Dis Child* 1984; 138(12): 1136-39.
14. *Lund ME. Banner W Jr. Clarkson TW. Berlin M. Treatment of acute methylmercury ingestion by hemodialysis with N-acetylcysteine (Mucomyst) infusion and 2,3-dimercaptopropane sulfonate. *J Toxicol Clin Toxicol* 1984; 22(1): 31-49.
15. Rhoads PM. Tong TG. Banner W Jr. Anderson R. Anticholinergic poisonings associated with commercial burdock root tea. *J Toxicol Clin Toxicol* 1984-85.22(6): 581-4.
16. *Ferron PM. Banner W Jr. Duckles SP. Lack of specific (3H) prazosin binding sites in dog and rabbit cerebral arteries. *Life Sci* 1984; 35(21): 2169-76.

17. *Hynes MR, Banner W Jr, Yamamura HI, Duckles SP. Characterization of muscarinic receptors of the rabbit ear artery smooth muscle and endothelium. *J Pharmacol Exp Ther* 1986; 238(1): 100-5.
18. Banner W Jr, Koch M, Capin DM, Hopf SB, Chang S, Tong TG. Experimental chelation therapy in chromium, lead, and boron intoxication with N-acetylcysteine and other compounds. *Toxicol Appl Pharmacol* 1986; 83(1): 142-7.
19. *Gaar GG, Banner W, Laddu, AR: The Effects of Esmolol on the Hemodynamics of Acute Theophylline Toxicity. *Ann Emerg Med* 1987; 16: 1334-9.
20. *Shubat PJ, Banner W, Huxtable RJ: Pulmonary Vascular Responses Induced by the Pyrrolizidine Alkaloid, Monocrotaline, in Rats. *Toxicon* 1987; 25(9): 995- 1002.
21. Banner W, Vernon D, Ward R, Sweeley J, Dean JM: Continuous Arterio-Venous Hemofiltration (CAVH) in Experimental Iron Intoxication. *Crit Care Med* 1989; 17: 1191-1193.
22. Banner W, Vernon D, Dean JM, Swenson E: Nonlinear Dopamine Pharmacokinetics in Pediatric Patients. *J Pharmacol Exp Ther* 1989; 249(1):131-133.
23. Vernon D, Banner W, Dean JM: Hemodynamic Effects of Experimental Iron Poisoning. *Ann Emerg Med* 1989; 18: 863-866.
24. Vernon DD, Banner W, Cantwell GP, Holzman BH, Bolte RG, Dean JM: *Streptococcus pneumoniae* bacteremia associated with near-drowning. *Crit Care Med* 1990; 18:1175-1176.
25. Banner W, Vernon D, Ward R, Sweeley J, Dean J: Continuous arterio-venous hemofiltration in experimental iron intoxication. *Crit Care Med* 1989; 17: 1191-1193.
26. *Quaife E, Banner W, Vernon D, Christensen D: Failure of CAVH to remove digoxin-Fab complex in piglets. *J Tox Clin Tox* 1990; 28: 61-68.
27. Banner W, Vernon D, Minton S, Dean J: Nonlinear dobutamine elimination in a pediatric population. *Crit Care Med* 1991; 19:871-873.
28. Vernon D, Banner W, Garrett J, Dean J: Efficacy of dopamine and norepinephrine for treatment of hemodynamic compromise in amitriptyline intoxication. *Crit Care Med* 1991; 19:544-549.
29. Christensen DW, Vernon DD, Banner W, Dean JM: Skin necrosis complicating intraosseous infusion. *Pediatric Emergency Care* 1991;7:289.
30. Banner W, Bach P, Burk B, Freestone S, Gooch WM: Influence of Assay Methods on Serum Concentrations of Digoxin During Fab Fragment Treatment. *Clinical Toxicology* 1992; 30:259-267.
31. Swenson E, Pappas J, Gooch WM, Banner W: Compatability of Ticarcillin Disodium Clavulanate Potassium with Commonly Used Intravenous Solutions. *Current Therapeutic Research* 1990; 48:385-394.
32. Vernon DD, Garrett JS, Banner W, Dean JM: Hemodynamic effects of dobutamine in an intact animal model. *Crit Care Med* 1992;20:1322-1

33. Vernon DD, Dean JM, Timmons OD, Banner W, Allen EM: Modes of death in the pediatric ICU: Withdrawal and limitation of supportive care. *Crit Care Med* 1993; 21:1798-1802.
34. Allen-Webb EM, Ross MP, Pappas JB, McGough EC, Banner W, Jr.: Age Related Amrinone Pharmacokinetics in a Pediatric Population. *Crit Care Med* 1994; 22: 1016-1024
35. Osteeyee JL, Banner W: Effects of Two Dosing Regimens of Intravenous Ranitidine on Gastric pH in Critically Ill Children. *Amer J of Crit Care* 1994; 3:267-272.
36. Pappas JB, Ahlquist JT, Allen EM, Banner, W Jr.: Oral Dimercaptosuccinic Acid and Ongoing Exposure to Lead: Effects on Heme Synthesis and Lead Distribution in a Rat Model. *Toxicology and Applied Pharm* 1995; 133, 121-129.
37. Burch GH, Jensen LR, Pappas J, Hammond EH, Banner W, Shaddy RE. Growth Factor Expression and Effects of Amrinone in Monocrotaline-Induced Pulmonary Hypertension in Rats. *Biochem and Molec Med* 1996; 58, 204-210.
38. Pappas JB. Allen EM. Ross M. Banner W Jr. HPLC micromethod for amrinone and metabolites in patients receiving concurrent cephalosporin therapy. *Clinical Chemistry*. 42(5):761-5, 1996 May.
39. Chyka PA, Banner W: The History of Poisoning in the Future: Lessons from Star Trek. *Clin Tox* 1999; 37, 793-799.
40. Lavonas EJ, Gerardo CJ, O'Malley G., Arnold TC, Bush SP, Banner W, Steffens M. Kerns WP, "Initial Experience with Crotaline Fab Antivenom in the Treatment of Copperhead Snakebite", *Ann Emerg Med* 43(2) 2004

* Denotes first author resident, fellow or student under supervision

Invited Reviews, Book Chapters, Letters

Articles

1. Duckles SP, Banner W: Changes in Vascular Smooth Muscle Reactivity During Development. *Ann Rev of Pharm and Tox* 1984; 24: 65-83.
2. Book Review: Clinical Management of Poisoning and Drug Overdose. Haddad LM, Winchester J. *Am J of Dis Child* 1983; 137:1135.
3. Editorial:Vancomycin in Perspective, Banner W, Ray CG. *Am J of Dis Child* 1984; 138:14-16.
4. Bedrick AD, Banner W, Balcom RJ, Bifano EM, Hakanson DO: Letter to Editor. Alert: Perioperative Neonatal Methemoglobinemia. *AJDC* 1984; 138: 889-890.
5. Banner W, Tong TG: Iron Poisoning. *Ped Clin North Am* 1986; 33:393-409.
6. Editorial: Banner, W: Why Read a Pharmacokinetic Article. *AJDC* 1986; 140:104-106.
7. Banner, W: Clinical Toxicology in the Neonatal Intensive Care Unit. *Med Tox* 1986; 1(3): 225-235.

8. Editorial: Banner W, Veltri J: The Case for Ipecac Syrup. *Am J Dis Child* 1988; 142: 596-7.
9. Guest Editors: Banner W, Bayer, M, Smith T: Digitalis Intoxication. *Am J of Em Med* 1991; 9(1); 1-34.
10. Editorial: Banner W: Succimer: Controversial Issues Involving the Release of a New Product. *Clinical Pharmacy* 1991; 10:942.
11. Banner W Jr. Vuignier BI. Pappas JB.: Mythology of lead poisoning. [letter; comment.]. Comment on: Pediatrics. 1992 Apr;89(4 Pt 1):614-8 ; 1313555, Comment on: Pediatrics. 1992 Apr;89(4 Pt 1):678-80 ; 1372971 Pediatrics. 91(1):161-2, 1993 Jan.
12. Banner W. Brent J. Garrettson LK. Lawrence RA. Rodgers GC. Shannon MW. Spyker DA. Tenenbein M. Vale JA. Weisman RS. What's in a name?--Regional Toxicology Treatment Centers. [letter; comment.].
Comment on: J Toxicol Clin Toxicol. 1993;31(2):211-7 ; 8492333
Journal of Toxicology - Clinical Toxicology. 31(2):219-20, 1993.
13. Banner W, Timmons OD, Vernon DD: Advances in the Critical Care of Poisoned Paediatric Patients. *Drug Safety* 1994; 10:83-92.
14. Banner W, Pentel PR: Medical Toxicology (Contempo 1994). *JAMA* 1994; 271: 1681-1682.
15. Banner W: Risks of Extracorporeal Membrane Oxygenation: Is there a role for use in management of the acutely poisoned patient? *Clin Tox* 1996; 34, 365-371.
16. Banner W. Of iron and ancient mariners. [letter; comment.]. Comment on: Ann Emerg Med. 1997 Nov;30(5):587-92 ; Annals of Emergency Medicine. 30(5):687-8, 1997 Nov.
17. Banner W Jr. A scorpion by any other name is still a scorpion. [letter; comment.]. Comment on: Ann Emerg Med. 1999 Nov;34(5):615-9 ; 10533009, Comment on: Ann Emerg Med. 1999 Nov;34(5):620-5 ; 10533010.
Annals of Emergency Medicine. 34(5):669-70, 1999 Nov.
18. Banner W Jr. Off label prescribing in children. *BMJ*. 2002 Jun 1;324(7349):1290-1

Books/Chapters

1. Banner W: General Principles of Clinical Pharmacology of the Fetus in: *Clinical Pharmacology in Pregnancy*, Helmut P. Kuemmerle, Ed., George Thieme Verlag Stuttgart, New York, 1983.
2. Tong TG, Banner W: Iron Poisoning in: *Current Emergency Therapy 84"*. Spyker, Ded. Appleton-Century-Crofts, Norwalk, Connecticut, 1984. Revised 1985, 1986.
3. Seizure Disorders in Children. Ferry PC, Banner W, Wolf RA. Lippincott Publishing CO. Heinz Eichenwald Sr. Editor, 1985.
4. Banner W: Medication and their Effects on the Fetus in: *Medical Malpractice: Handling Obstetric and Neonatal Cases*, McGraw-Hill, Colorado Springs Colorado, 1986.
5. Banner W: Drug Administration During the Neonatal Period in: *Medical Malpractice: Handling Obstetric and Neonatal Cases.*, McGraw-Hill, Colorado Springs Colorado, 1986.

6. Banner W, Elsberry VA: Pediatrics in: Computer Applications in Clinical Practice, Levinson D, ed. Macmillan Publishing Co., 1985.
7. Banner W: Toxicology in: *Principles of Pharmacology*, Raven Press, New York, 1986.
8. Banner W: Bites and Stings in the Pediatric Patient in: *Current Problems in Pediatrics*, Year Book Medical Publishers Inc., 1988.
9. Tong T, Banner W: Iron Poisoning; Drug Toxicity and Metabolism in Pediatrics in: *Clinical Toxicology*. CRC Press, Florida, 1990.
10. Banner W: Bites and Stings in the Pediatric Patient; in *Current Problems in Pediatrics*, Year Book Medical Publishers Inc., 1988.
11. Russell FR, Banner W: Snake Venom Poisoning in: *Conn's Current Therapy*. Rakel, E ed. Saunders, Philadelphia, PA, 1988.
12. Banner W: Scorpion envenomation; in Auerbach PS, Geehr EC (eds): *Wilderness and Environmental Emergencies*, C.V. Mosby Company, 1989.
13. Banner W: Bites and stings in: *Ambulatory Pediatrics*, Green M, Haggerty RJ (eds): 1990.
14. Banner W, Orsmond, G: Digoxin Toxicity; in Blumer JL (ed): *A Practical Guide to Pediatric Intensive Care*, St. Louis: The C.V. Mosby Company 1990.
15. Banner W: Anticonvulsant Drug Overdose; in Blumer JL (ed): *A Practical Guide to Pediatric Intensive Care*, St. Louis: The C.V. Mosby Company 1990.
16. Banner W: Tricyclic Antidepressant Toxicity; in Blumer JL (ed): *A Practical Guide to Pediatric Intensive Care*, St. Louis: The C.V. Mosby Company 1990.
17. Banner W, Orsmond, G: Cardiac Glycoside Intoxication; in Grossman M, Diekmann R (eds): *Quick Reference to Pediatric Emergencies* 1991.
18. Banner W: Cyclic antidepressant overdose; in Grossman M, Diekmann R (eds): *Quick Reference to Pediatric Emergencies* 1991.
19. Banner W: Enhancing the Elimination of Toxins; in Grossman M, Diekmann R (eds): *Quick Reference to Pediatric Emergencies* 1991.
20. Banner W, Vernon DD: Iron Intoxication; in Grossman M, Diekmann R (eds): *Quick Reference to Pediatric Emergencies* 1991.
21. Vernon DD, Banner W: Iron Poisoning; in Blumer JL (ed): *A Practical Guide to Pediatric Intensive Care*, St. Louis: The C.V. Mosby Company 1990.
22. Banner W, Rumack BG: Plant and Animal Poisonings; in Blumer JL (ed): *A Practical Guide to Pediatric Intensive Care*, St. Louis: The C.V. Mosby Company 1990.
23. McElwee N, Banner W: Vitamin Toxicity; in Harwood-Nuss A, et al (ed): *The Clinical Practice of Emergency Medicine*, Worcester: J.B. Lippincott Company 1991.

24. Banner W, Vernon DD: Interventions for specific toxins; in Fuhrman BP, Zimmerman JJ (eds), *Pediatric Critical Care*. St. Louis: The C.V. Mosby Company 1992.
25. Eland JM, Banner W: Assessment and Management of Pain in Children: *Nursing Care of the Critically Ill Child*, Hazinski MF ed, 2nd edition. St. Louis: Mosby Year Book, 1992
26. Berkowitz ID, Banner W, Rogers MC: Poisoning and the Critically Ill Child in Rogers MC (ed) *Textbook of Pediatric Intensive Care*. 2nd edition. Baltimore: Williams and Wilkins 1992.
27. Chyka PA, Banner W: Hematopoietic Agents in Dart RC (ed) *Medical Toxicology*, 3rd Edition, Philadelphia: Lippincott, Williams, and Wilkins 2004.
28. Banner W, Barton RP: Pediatric Toxicology in the Pediatric Intensive Care Unit. In Erickson TB et al (ed) *Pediatric Toxicology*, McGraw-Hill Companies 2005

Letters

1. Corneli HM, Banner W, Vernon DD, Swenson PH: Toddler eats clonidine patch and nearly quits smoking for life (letter). *JAMA* 1989; 261:42.
2. Banner W, Swenson E, Vernon DD, Dean JM, Gooch WM: Ceftazidime dosing in continuous arterio-venous hemofiltration (letter). *Clinical Pharmacy* 1989; 8:91.

Published as an Abstract Only

1. Banner W, Cardenas J, McCoy K, and Zind B: Combined Toxicity of Milk of Magnesia and Fleet's Phosphosoda. American Academy of Clinical Toxicology, Salt Lake City, Utah, August 3-7, 1981.
2. Jackson JE and Banner W: Tricyclic Antidepressant Overdose: Cardiovascular Responses to Catecholamines. American Academy of Clinical Toxicology, Salt Lake City, Utah, August 3-7, 1981.
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29. Merritt KA, Vernon D, Banner W: Salt Poisoning Due to Ingestion of Soy Sauce. AACT/AAPCC/ABMT/CAPCC Annual Scientific Meeting, Baltimore, Maryland, 1988.
30. Gooch MW, Banner W, Swenson E: Timentin Pharmacokinetics in Critically Ill Pediatric Patients. American Society of Clinical Pharmacology and Therapeutics- Annual Meeting, Nashville Tenn March 1989.
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Visiting Professor

University of California - Berkeley

Pharmacology Visiting Professor, Clinical Toxicology

August 1985

August 2-9, 1986

August 3-8, 1987

August 8-12, 1988

Hospital Escuela - Tegucigalpa, Honduras

Visiting Lecturer - Project Hope - April 15-30, 1986

San Juan de Dios Hospital- Guatemala City, Guatemala

Visiting lecturer/Central American Pediatric Society - May 1992

Community Activities

Board of Directors Cerebral Palsy Foundation School, 1983-1984

Emergency Medical Services Council - Tucson, Arizona, 1985-1987.

Project Hope Alumni Association - 1987-present

Citizens Advisory Committee on Chemical Weapons Demilitarization - 1992-1994

Dugway Technical Advisory Committee on Bioweapons - 1993- 1994

Advisory Panel on Lead Screening in Utah- Utah Medicaid Program - 1993- 1994

Board of Directors The Indian Health Care Resource Center – 2005 until present

2005 Great Spirit Award- Tulsa March of Dimes Gourmet Gala and Chef's Auction

2007 Honorary Co-Chair – IHCRC Two Moons Over Paradise Annual Fund Raiser